

December 31, 1951

Dr. Kenneth B. Raper  
Fermentation Division  
Northern Regional Research Laboratory  
Peoria 5, Illinois

Dear Dr. Raper:

Thank you for your letter of the 20th, and for the five actinomycete cultures that arrived this noon. As we learn something about the genetics of these forms, I hope to be able to discuss the experiments with you. So far, it is fairly clear that *Streptomyces griseus* forms heterokaryons which, however, dissociate quite readily. The ordinary procedures of plating out spore suspensions, and picking single colonies are therefore likely to be reliable for the purpose of ensuring initial genetic homogeneity of cultures. Whether more interesting processes occur (sexuality) has not yet been settled; some combinations of mutants of *S. griseus* seemed to engender wild type recombinations; others persistently yielded only the parental forms. It is this point, and the possibility of "inter-specific" associations that I hope to explore further with the cultures provided.

If any obstacles to the application of *S. aureofaciens* to biological experimentation exist, please regard that question as closed. I should be interested to hear your verbal comments, and hope before too long to accept your invitation to visit your laboratory.

Yours sincerely,

Joshua Lederberg  
Associate Professor of Genetics